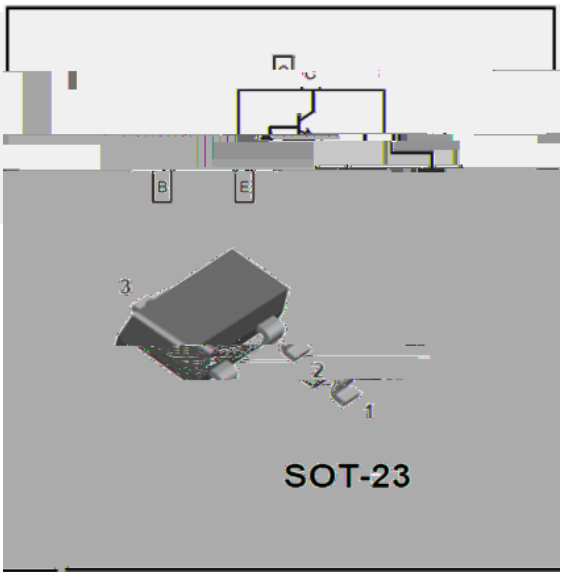
2SC2412

RoHS
COMPLIANT

NPN Transistor



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix ”HF”
- Moisture Sensitivity Level 1
- Surface mount package ideally Suited for Automatic Insertion
- NPN

Mechanical Data

- **Package**: SOT-23
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking**:

2SC2412-Q	BQ
2SC2412-R	BR
2SC2412-S	BS

■ Maximum Ratings (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V	IC=50μA,IE=0	60
Collector-Emitter Voltage	V_{CEO}	V	IC =1mA,IB=0	50
Emitter-Base Voltage	V_{EBO}	V	IE=50μA,IC=0	7
Collector Current	I_C	A		0.15
Collector Power Dissipation	P_C	mW		200
Operation Junction Temperature	T_j			150
Storage Temperature	T_{stg}			-55 to +150

■ Electrical Characteris

Item	Symbol	Unit	Conditions	Min	Type	Max
Collector-base breakdown voltage	V_{CBO}	V	IC=50μA,IE=0	60		
Collector-emitter breakdown voltage	V_{CEO}	V	IC =1mA,IB=0	50		
Emitter-base breakdown voltage	V_{EBO}	V	IE=50μA,IC=0	7		
Collector-base cut-off current	I_{CBO}	uA	V_{CB}=60 V ,IE=0			0.1
Emitter-base cut-off current	I_{EBO}	uA	V_{EB}=7 V , IC=0			0.1
DC current gain	h_{FE}		VCE=6V,IC=1mA	120		560
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	IC=50mA,IB=5mA			0.4
Transition frequency	f_T	MHz	VCE= 12V, IC=2mA,f=100MHz		160	
Collector-base output capacitance	Cob	pF	V_{CB}=12V ,IE=0, f=1MHz		2.0	3.5

■ CLASSIFICATION OF HFE

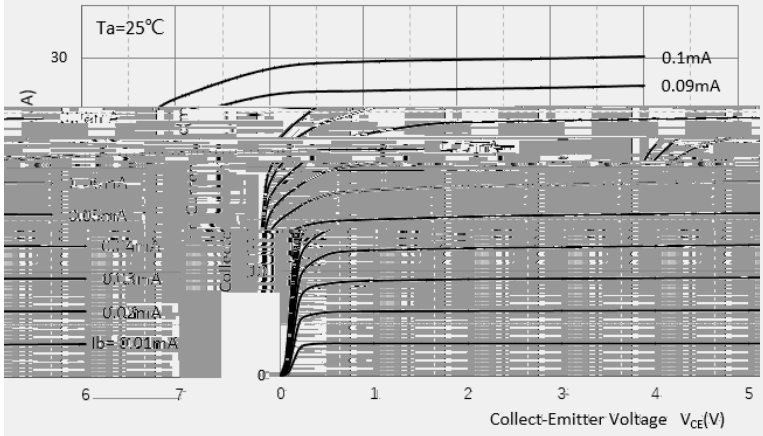
Rank	Q	R	S
Range	120-270	180-390	270-560

■ Ordering Information (Example)

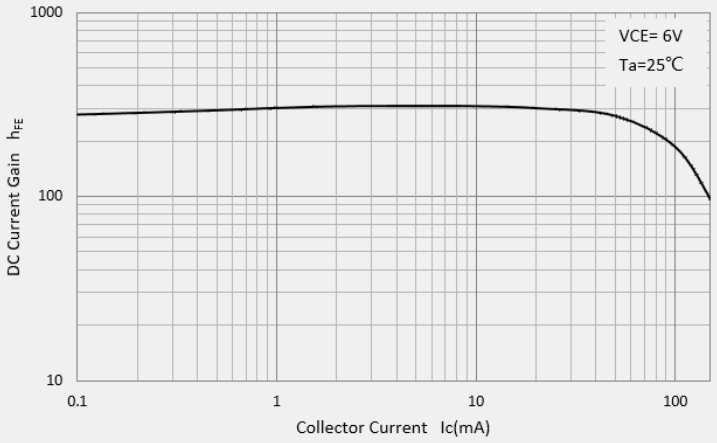
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
2SC2412	F2	Approximate 0.008	3000	30000	120000	7” reel

■ Characteristics(Typical)

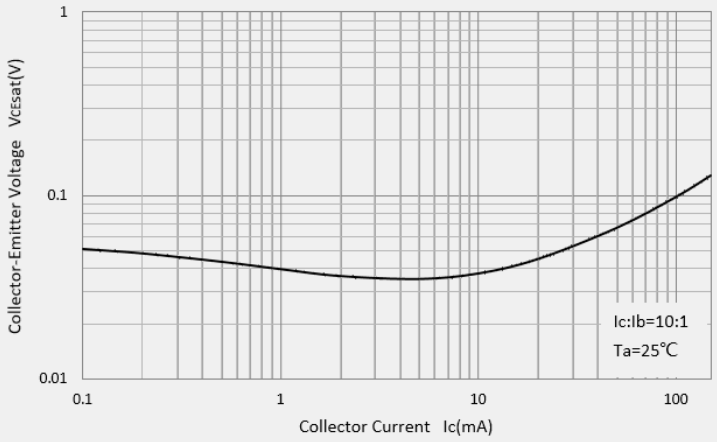
Static Characteristic



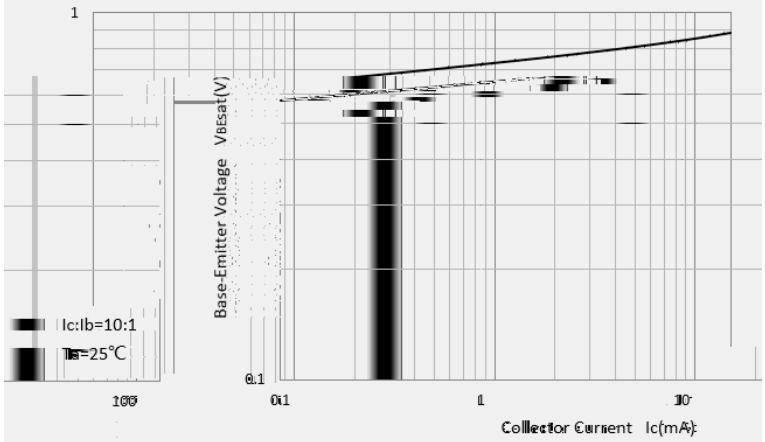
DC Current Gain



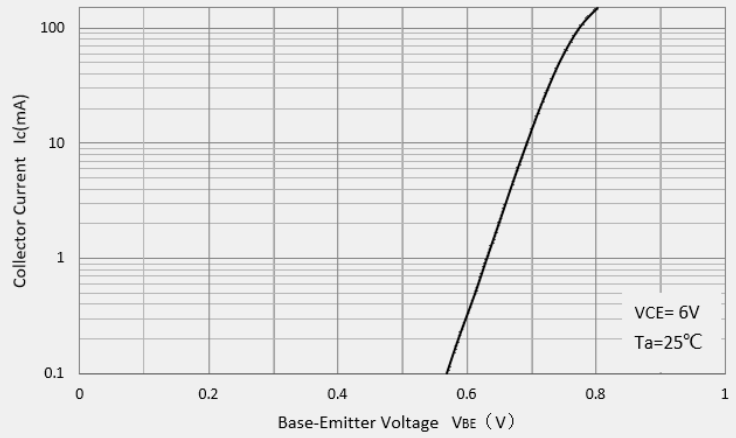
Collector-Emitter Saturation Voltage



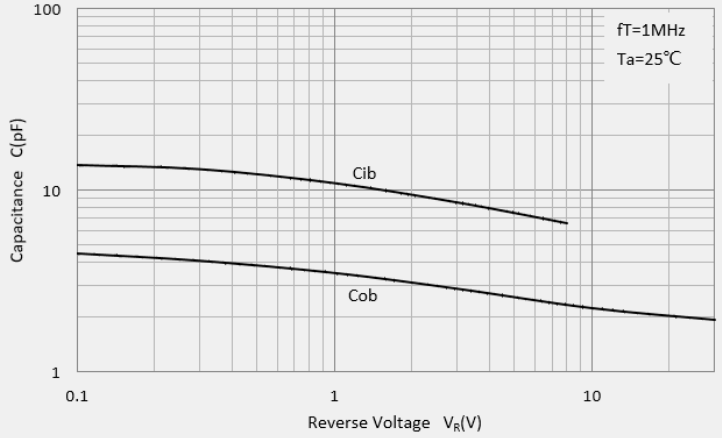
Base-Emitter Saturation Voltage



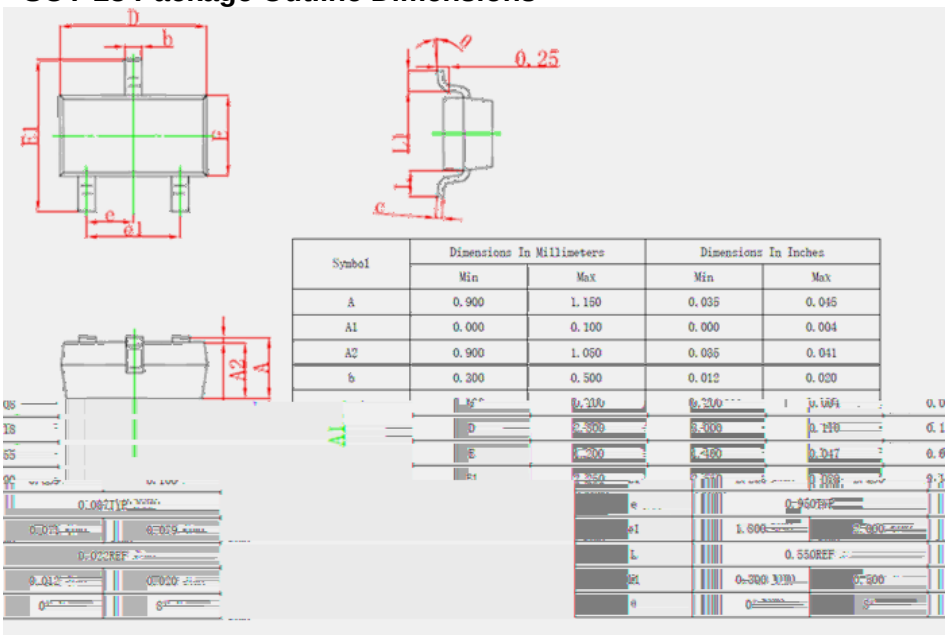
Base-Emitter On Voltage



Cob/Cib-V_{CB}/V_{EB}

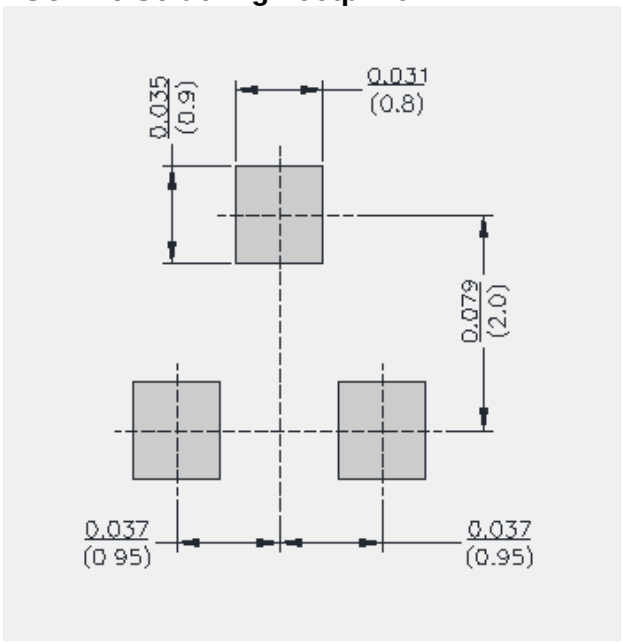


■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020

■SOT-23 Soldering Footprint



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